



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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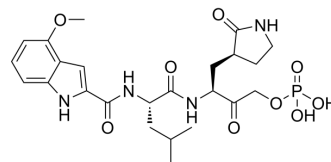
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## Lufotrelvir

<b>Cat. No.:</b>	HY-138078		
<b>CAS No.:</b>	2468015-78-1		
<b>Molecular Formula:</b>	C <sub>24</sub> H <sub>33</sub> N <sub>4</sub> O <sub>9</sub> P		
<b>Molecular Weight:</b>	552.51		
<b>Target:</b>	SARS-CoV		
<b>Pathway:</b>	Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 130 mg/mL (235.29 mM; Need ultrasonic)  
 H<sub>2</sub>O : 50 mg/mL (90.50 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.8099 mL	9.0496 mL	18.0992 mL
5 mM	0.3620 mL	1.8099 mL	3.6198 mL
10 mM	0.1810 mL	0.9050 mL	1.8099 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 3.25 mg/mL (5.88 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: ≥ 3.25 mg/mL (5.88 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
 Solubility: 3.25 mg/mL (5.88 mM); Suspended solution; Need ultrasonic

### BIOLOGICAL ACTIVITY

#### Description

Lufotrelvir (PF-07304814), a phosphate proagent of PF-00835231, acts as a potent 3CLpro protease (Mpro) inhibitor with SARS-CoV-2 antiviral activity. Lufotrelvir binds and inhibits SARS-CoV-2 3CLpro activity with a K<sub>i</sub> of 174nM. Lufotrelvir is promising single antiviral agent and also can be used for the research of combination with other antivirals that target other critical stages of the coronavirus life cycle.

#### In Vivo

Once administered through intravenous infusion, Lufotrelvir is cleaved into PF-00835231 to exert its anti-viral effects.

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Lufotrelvir exhibits a favorable cardiovascular safety profile<sup>[1]</sup>.

Lufotrelvir is administered intravenously to rats, dogs and monkeys. It exhibits high systemic clearance and short half-life across species forming 68, 81, 76% PF-00835231 in rats, dogs and monkey respectively in comparison to the systemic exposure achieved with IV administration of PF00835231<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Antiviral Res. 2023 Jul 12;105671.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

[1]. Koen Vanduyck, et al. Considerations for the discovery and development of 3-chymotrypsin-like cysteine protease inhibitors targeting SARS-CoV-2 infection. *Curr Opin Virol.* 2021 Apr 27;49:36-40.

[2]. Britton Boras, et al. Title: Discovery of a Novel Inhibitor of Coronavirus 3CL Protease as a Clinical Candidate for the Potential Treatment of COVID-19 Short Title: Novel 3CL Protease Inhibitor for COVID-19

**Caution: Product has not been fully validated for medical applications. For research use only.**

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